RESPONSE TO THE DRAFT TIER 1 REMEDIAL INVESTIGATION REPORT COMMENTS
STAR LAKE CANAL SUPERFUND SITE, JEFFERSON COUNTY, TEXAS
DECEMBER 2007

Item No.	*Reference*	*Comment made by*	*Comment*	*Response*
GENERAL COMMENTS				
1	General	Jessica White, NOAA	Several responses appear to deflect from the comments based upon the defense of an approved Tier 1 Work Plan. This is troubling because the RI is proceeding under a tiered process. By nature the tiered process is meant to be flexible and iterative. As information becomes available the process adapts as necessary with each phase or tier building upon the last. The process begins with much uncertainty – data is collected and evaluated to reduce this uncertainty.	We agree that a tiered assessment should be flexible and iterative in nature. When the tiered approach is applied to a risk assessment, there may be a clarification of the total data set available to date and thus an interactive evaluation of the risk assessment should be conducted during each tier. As the assessment moves from tier to tier, pathways of investigation and evaluation should narrow and focus future data collection efforts to fill data gaps based on the information gathered. The comment responses contained herein have been revised, and the draft Tier 1 report will be revised, to reflect our understanding of the tiered risk assessment approach.
2	General	Jessica White, NOAA	Work Plans are skeletal in comparison to the RI – they do not provide the detail and context of a full report. Reliance upon the Work Plan as the means to resolve complex technical issues limits the ability of the agencies to respond to new information. When a comment is presented that poses a thoughtful, logical issue with a solid technical basis it should be addressed in a direct manner. Specifically, item numbers 5, 7, 10, 11, 14, 20, 34, 36, 41, 48, 49, 77, 78, and 80 had an unsatisfactory response based upon the defense of an approved Work Plan. The issues identified in these comments should be addressed before moving forward with the RI.	Please see attached response to Comment No. 2. In addition, responses to the specific previous comments are provided in the responses herein.
3	General	Kenneth Shewmake, USEPA Ecological Risk Assessor	Comment 10, 20, and 36: In my comment letter on the draft RI report on 4-7-06 the following comment was stated. *When establishing a hierarchy for the selection of ecological benchmarks, Texas chronic WQS should be considered before NAWQC.* In addition the work plan did not include a full list of benchmarks that will be used during the RI. The discussion of benchmarks was confused by references to ARARs that may or may not be used as benchmarks. The primary source of ecological benchmarks for this site should be TCEQ. This was also addressed in my comments on the draft work plan. The work plan does not clearly state or list the specific benchmarks that will be used so the argument that alternative benchmarks have been approved is not appropriate.	The Tier 1 RI Report will be revised to include the use of the Texas Surface Water Quality Standards (TSWQS) as the primary source of ecological benchmarks and the National Ambient Water Quality Criteria (NAWQC) as supplement benchmarks where there are no TSWQS or where the NAWQC is more stringent. Tables will cite the benchmarks used and the source(s). In subsequent tiers, additional benchmarks might be utilized to fill some of the data gaps. Those would be discussed with EPA and TCEQ (and other stakeholders) prior to the inclusion and would not be used in place of the current benchmarks.
4	General	Kenneth Shewmake, USEPA Ecological Risk Assessor	Comments 4, 7, 9, 28, and 72 are all related to showing how the data will be analyzed, explaining the DQO process, and explaining what will be accomplished in tier two of the RI. It would be best to discuss these issues in a scoping meeting prior to submission of the Tier Two RI work plan or report.	Please see attached response to Comment No. 4.
5	General	Kenneth Shewmake, USEPA Ecological Risk Assessor	Comment 77 and 78: The approved work plan states that criteria used for development of the initial list of COPCs are from the EPA RAGs and the TCEQ risk reduction program (page 5-2 of WP). These guidance documents describe conditions that must apply in order to use these exclusions. For example the detected in less than 5% of samples rule can only be used if more than 20 samples are collected. All of the other conditions listed in RAGS apply because the work plan cited these documents. The revised tier one RI report needs to document the criteria used for elimination of COPCs so that the reviewer can confirm that the use of that criteria was appropriate.	The criteria used in the Tier 1 RI for elimination of human health COPCs and ecological COPECs are outlined in Section 7.1 and Section 8.2.3 of the Draft Tier 1 RI Report, respectively. As requested, tables will be revised to indicate when criteria for specific constituents were met and resulted in elimination of a constituent as a COPC or COPEC. In addition, based on an evaluation of the data collected during the Tier 1 RI, no constituents are being eliminated due to detection in less than 5 percent of samples.
6	General	Kenneth Shewmake, USEPA Ecological Risk Assessor	Comment 80: The elimination of essential nutrients that are only toxic at high concentrations was not listed in the WP but it is discussed in RAGS (section 5.9.4). It is to the PRPs benefit to use this exclusion. Because it appears that this exclusion was used in the draft tier one RI report, its use should be documented.	The elimination of essential nutrients that are only toxic at high concentrations will be listed in the Draft Tier 1 RI report to account for any constituent that is being eliminated due to this exclusion listed in the EPA RAGS.

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7	General	Larry Champagne TCEQ Technical Support Section Remediation Division	Several responses appear to deflect from the comments based upon the defense of an approved Tier 1 Work Plan. This is troubling because the Remedial Investigation (RI) is proceeding under a tiered process. By nature, the tiered process is meant to be flexible and iterative. As information becomes available, the process adapts as necessary, with each tier building upon the last. The process begins with much uncertainty and data is collected & evaluated to reduce this uncertainty. Work Plans are skeletal in comparison to the Tier 1 RI Report, since they do not provide the detail and context of a full report. Reliance upon the Work Plan as the means to resolve complex technical issues limits the ability of the agencies to respond to new information. When a comment is presented that poses a thoughtful, logical issue with a solid technical basis, it should be addressed in a direct manner. Specifically, item numbers 5, 7, 10, 11, 14, 20, 34, 36, 41, 48, 49, 77, 78, 80 have an unsatisfactory response based upon the defense of an approved Work Plan. The issues identified in these comments should be addressed before moving forward with the Tier 2 RI.	See attached responses to Comments No. 1 and 2.
8	General	Larry Champagne TCEQ Technical Support Section Remediation Division	Everyone involved in the RI at the Star Lake Canal site would prefer the remedial process be as efficient and timely as possible. However, going through a "response to comments" process prior to revising the associated document is only an efficient and timely exercise if the responses contain enough information to assure the reviewer that the revisions will adequately address the issues of concern. As presented below in the Specific Comments, several of the responses were inadequate. Multiple comment exchanges reiterating the exact same comments from both the State of Texas and the federal and state Trustees slows the process down and does nothing to move the remedial process forward. Adequately addressing these comments when they are first submitted will help us continue to make progress in this remedial process.	We agree with the objective of making the RI process more timely and efficient. To facilitate this objective we are providing herein more detailed responses to comments and, in addition, are agreeing to numerous requested modifications to the draft Tier 1 RI report.
9	General	Larry Champagne TCEQ Technical Support Section Remediation Division	Several responses defer issues to the Tier 2 RI. It is important that the Tier 1 RI firmly establishes that its goals and objectives have been achieved or acknowledges where those objectives are to be incorporated into the Tier 2 RI. Further, the Tier 2 will likely expand the Tier 1 results by developing additional lines of evidence to be used in a weight-of-evidence approach to characterize ecological risk. This can include a chemistry line-of-evidence for community level exposures to sediment and surface water. The evaluations performed in the Tier 1 RI do not simply "complete the Tier 1 RI", but lay the foundation for one line-of-evidence that may or may not be refined in the Tier 2 RI. It is very important that the methodology of the Tier 1 RI be sound enough to be included in any weight-of-evidence approach used to characterize risk to ecological receptors in the Tier 2 RI.	See attached response to Comments 2 and 4.
10	General	Larry Champagne TCEQ Technical Support Section Remediation Division	Apparently, there was some confusion over the release of the prior round of combined Trustee/TCEQ Ecorisk Assessor comments that may have resulted in the duplication of several comments. For purposes of this current review, we will be responding to the original comments submitted in my memo dated May 31, 2007 and we will also identify the corresponding comments listed as "Combined Trustee Comments" in the response spread sheet. In the future, unless otherwise specified, it will be the memo from the TCEQ ecological risk assessor that will reflect the official review comments from both the Natural Resource Trustees and those of the risk assessor.	No response necessary.
11	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 10:** As specified in the Item 22 comment by EPA and as agreed to in the associated response, TCEQ's promulgated surface water quality standards are clearly ARARs. It is important that the protection of aquatic life that the criteria listed in the Texas Surface Water Quality Standards (TSWQS, 30 TAC §307) be used as the primary source as these are state law. The National Ambient Water Quality Criteria (NAWQC) can then be used to supplement the TSWQS where there are no values for particular COPECs or where the NAWQC are more stringent. This is a non-negotiable item.	See the response to Comment No. 3.

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12	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 11 (corresponding Item 5)**: The response is unclear on how cumulative effects will be evaluated. The potential for cumulative effects will need to be adequately considered in order to characterize risk to ecological receptors. Polycyclic Aromatic Hydrocarbons (PAHs) are known to have a narcotic cumulative effect; this exposure scenario to aquatic life needs to be evaluated prior to the SLERA proposing that individual PAHs can be removed from further evaluation for water exposures. PAH exposure to bird and mammal receptors will need to be evaluated using a toxicity reference value representative of PAHs (e.g., totals or a low and high molecular weight grouping) or be subject to a Hazard Index evaluation. Also, Arochlor analytical data can be used to calculate a Total PCB concentration, so negating this issue by stating that the approved analytical program calls for Arochlor analysis is irrelevant to the issue of evaluating exposure to Total PCBs.	The SLERA will be revised to reflect the evaluation of ecological risk associated with total PAH concentrations rather than individual PAH concentrations. The potential for cumulative PAH effects will be adequately considered in order to characterize risk to ecological receptors. In addition, we will evaluate whether Total PCB concentrations can be calculated with the use of individual Aroclor analytical data. TRV values will be established for Total PAHs and possibly for Total PCBs and will be used in the determination of Hazard Quotients (HQs).
13	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 14 (corresponding Item 7)**: We are still looking into the presence of dioxin in the site vicinity. It is known that Star Lake Canal/Jefferson Canal has received industrial waste water discharges from several local chemical manufacturing facilities for a number of years. It is also known that 2, 4, 5-T was found at some of these chemical companies (TNRCC, 1999) and that 2, 3, 7, 8-TCDD is a byproduct of the manufacture of 2, 4, 5-T and thus would be present in any 2, 4, 5-T product.	See attached response to Comment No. 13.
14	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 36**: The response does not address the issue that water benchmarks for PAHs used in the SLERA are inconsistent with National Recommended Water Quality Criteria or TCEQ ecological benchmarks; although text states that these are the sources for water benchmarks. This includes failing to use State of Texas water quality standards (e.g., phenanthrene).	See response to Comment No. 3. The tables will be revised to reflect TCEQ benchmarks for PAHs and the Draft Tier 1 RI Report will be revised to reflect all those changes. As indicated previously, TCEQ benchmarks will be used preferentially and will be used in the Tier 2 RI.
15	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 38**: The response to our comment regarding the evaluation of threatened/endangered species is inadequate. The response needs to provide more details as to how the RI Report will be revised to address all of the issues presented in the comment.	The 4th bullet will be revised so that it reads "the ROCs must reflect state of federally listed T&E species if their occurrence was confirmed at the site or potential habitat for the species exists on the site". ENTRIX has included the White-faced Ibis (see detail in Comment No. 17) and is currently building the model for the Brown Pelican. In addition Section 7 consultation letters will be evaluated in more detail and determine whether adequate habitat exists for other noted state or federally threatened or endangered species within this county. If habitat exists, models will be generated to estimate potential risk to those species.
16	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 40**: The response to our comment regarding the muskrat is inadequate. The response needs to provide more specifics as to how the information for the muskrat will be "modified accordingly." Will the revised document correctly characterize the muskrat diet according to the comments provided? How will the soil and sediment data be used when determining the total dose for the muskrat?	The attached table (Table 6-1) has been provided that details the exposure factors utilized for the Muskrat and the citations for each value. In addition, the current risk models take into account sediment ingestion, water ingestion, soil ingestion, and ingestion of vegetation as a food source and adequately characterize each. To provide clarity, all input variables and equations for each model will be provided as an appendices in the Tier 1 RI report and subsequent phases of the investigation.
17	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 40**: The response to our comment regarding the white-faced ibis is inadequate. Which surrogate species will be used for the listed white-faced ibis? Will conservative assumptions (e.g., NOAELs) be used for this and other surrogate species in the Tier 2 evaluation?	The attached Table (Table 6-1) provides detailed information regarding the exposure factors utilized for the White-faced Ibis. Some information was calculated based on the allometric equations obtained from the EPA's Exposure Factors Handbook. Other information was obtained through various citations (See the attached table). In addition, the Great Blue Heron was used as a surrogate (i.e., ingestion rates); however, the values were adjusted for body weight. This is considered sufficient so that the White-faced Ibis is adequately characterized. In addition, all input variables, equations, and a revised exposure factors table will be provided in the Tier 1.

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18	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 41**: The response to our comment regarding the addition of terrestrial receptors is inadequate. Please revise the receptor list according to the comment provided. Although the initial receptor list was approved in the Tier RI Work Plan, new information regarding extent of terrestrial contamination combined with a site visit confirming habitat availability should be used to modify the original receptor list accordingly.	In addition to the use of a raccoon as the approved and evaluated ROC, a small mammal (e.g., deer mouse), a terrestrial bird (e.g., robin and/or red-tailed hawk), the Spotted Sandpiper, and a reptile will be added. Also, an amphibian receptor will be added to the list of ROCs. Models will be generated and each species will be evaluated and added to the Draft Tier 1 RI Report.
19	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 48**: The response is inadequate to address the several aspects of the comment. Evaluation of benthic community exposure to PAH mixtures using USEPA guidance should be performed according to USEPA, 2003, the most recent guidance on the topic. Recall, the SLERA cited and used a 2000 USEPA document, which is a draft, out of date and no longer available to the public. The SLERA needs to be revised to conform to guidance provided in USEPA, 2003.	The SLERA will be revised to reflect the final USEPA Guidance (2003) regarding the evaluation of benthic community exposure to PAH mixtures. Essentially, the latest guidance generally represents previous draft guidance in most technical aspects of PAH mixtures and their combined effects on benthic organisms.
20	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 48**: Clarify the inconsistency between Table 3 - List of Constituents Analyzed in the Tier 1 RI, which identifies 34 PAHs and the SLERA sediment data tables which only provides results for 16 PAHs. Was the analytical program performed as approved?	Additional PAHs that included benzo(e)pyrene, perylene, and the C1-, C-2, C3-, and C-4 PAHs were erroneously included in Table 3 of the Draft Tier 1 RI Report. The samples collected during the Tier 1 RI were analyzed in accordance with the QAPP, Appendix A of the approved Tier 1 RI Work Plan, which included 16 PAHs. Table 3 of the Draft Tier 1 RI Report will be revised to reflect the correct COC list from the QAPP, Appendix A of the approved Tier 1 RI Work Plan.
21	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 48**: SLERA text incorrectly states that the raw summed toxicity units were corrected by multiplying by 2.75 in order to estimate toxicity associated with 34 PAHs, *essentially ensuring the corrected sum toxic units will fall within the 95% confidence limits of those measured using 34 PAHs* . According to USEPA, 2003, use of a 2.75 correction factor does not ensure the corrected sum toxic units will fall within the 95% confidence limits of those measured using 34 PAHs; rather it would fall within the 50th percentile, which would not provide a necessary level of confidence for either a screening level or baseline assessment. The SLERA needs to be revised to be consistent with the methodology selected. An unexplained reference to similar assessments and professional judgment is insufficient to negate USEPA guidance. As the chemistry line of evidence will most likely be one line of evidence in a weight of evidence approach to evaluating the benthic community, it is imperative that the SLERA adequately implement USEPA guidance cited as the basis for particular methodology.	See response to Comment No. 3 . The tables will be revised to reflect TCEQ benchmarks for PAHs and revise the Draft Tier 1 RI Report to reflect all the changes. As stated previously, TCEQ benchmarks will be used preferentially and will be used in the Tier 2 RI.
22	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 48**: The response also rejects the request to evaluate the benthic community using the TCEQ's Total PAH benchmark approach (i.e., comparison of site data to first effects level and the mid-point level between the first and second effects levels (TCEQ, 2001 and update of 2006)). Despite the position taken in the response to comments, PAH data must be presented as Total PAHs within the sediment data Tables 6A to 6D.	The SLERA will be revised to reflect the evaluation of receptors with the use of TCEQ's Total PAH benchmark approach. Tables 6A and 6D in the Draft Tier 1 RI Report will be revised to reflect this change.
23	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 49**: See comment regarding evaluation of exposure to Total PCBs. *Hazard Quotients (Evaluation of Aroclor): It is common practice for risk from exposure to polychlorinated biphenyls (PCBs) to be evaluated based on a Total PCB concentration to consider the similar toxic mechanism of the various Aroclors. It is unclear why the SLERA developed HQs for individual Aroclors. In addition, Aroclor analysis is a poor analytical method t evaluate weathered PCBs. With the confirmation of their presence in Tier 1, Tier 2 sampling should consider this issue.*	As discussed in the response to Item No. 12, we will evaluate whether the SLERA should be revised to show calculation of HQs based on Total Aroclors rather than individual Aroclors. Given that only individual Aroclor analytical data is available, the assumption that Total Aroclors accurately reflect Total PCBs may not be appropriate. In addition, we will evaluate whether the Tier 2 RI Work Plan should address the analysis of weathered PCBs.

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24	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 72 (corresponding Item 71)**: The response to our comment regarding Molasses Bayou is inadequate as it references to Item No. 57, which simply states that a detailed scope of work will be provided in the Tier 2. To ensure a thorough scope of work, and to minimize comment exchange on the Tier 2 document (and this Tier 1 document), more specifics could be provided at this point in the process. Enough information should be available already to answer our elemental question regarding whether further sampling of Molasses Bayou will occur.	Constituent concentrations were detected above the limiting human health criteria (LHHC) in sediment samples collected in the watercourse of Molasses Bayou at locations MB-10, MB-14, MB-18, and MB-21. However, no constituents were detected in sediment samples above the LHHC in samples collected outside of the watercourse at adjacent locations MB-11, MB-12, MB-15, MB-16, MB-17, MB-19, MB-20, MB-22, and MB-23. Therefore, the pathway for constituents to migrate through Molasses Bayou appears to be partially limited to the watercourse of the bayou. Additional sampling of Molasses Bayou will be completed in the Tier 2 RI to further determine the horizontal and vertical extent of impact in this portion of Molasses Bayou including within the watercourse and adjacent to the watercourse.
25	Specific	Larry Champagne TCEQ Technical Support Section Remediation Division	**Item No. 75**: Please verify the understanding regarding the surrogate text being present, as it appears to be absent. See Appendix H, Pages H-20 to H-24.	This information including verification will be provided in the Draft Tier 1 RI Report. The TRV section will be reviewed and inconsistencies within the text will be reconciled accordingly. Any missing information will be added to the appendices.
26	General	Sarah Schreier TCEQ Technical Support Section Remediation Division	Data from the Huntsman facility suggests that groundwater at the site is potentially usable for drinking water purposes. Therefore, TCEQ does not concur that a groundwater exposure pathway is not applicable. The original comment is reiterated here. Groundwater exposure pathways and potential groundwater impact from the Star Lake Canal Site must be evaluated in future iterations of the remedial investigation.	A review of groundwater yield (slug test) data collected during the Huntsman Site Wide APAR from monitor wells at the Huntsman facility suggests that groundwater at the site is potentially usable for drinking water purposes. In addition, the potentiometric data collected during the Tier 1 RI near the Star Lake Canal dam indicates that groundwater to surface water discharge may be possible at times. Therefore, groundwater exposure pathways are potentially complete as the groundwater impact related to the Huntsman facility is adjacent the Star Lake Canal Superfund Site; however, the related risk assessment is currently being evaluated as part of the Huntsman Site Wide Groundwater APAR. It would not be efficient to have both the Huntsman Site Wide Groundwater APAR and the Star Lake Canal RI evaluate the groundwater impact related to the Huntsman facility. The risk assessment information that is gathered during completion of the APAR will be included and discussed in the revised Draft Tier 1 RI Report.
27	General	Sarah Schreier TCEQ Technical Support Section Remediation Division	See 16 above. Please incorporate any referenced information from the Huntsman facility APAR into this report so that it is a stand alone document. Remember that the intended audience is the citizenry as well as the regulators.	All referenced information from the Huntsman facility APAR will be incorporated into the Draft Tier 1 RI Report. The referenced material is attached in the following groups: (1) 2-1507 Groundwater Report Tables, (2) 3-1507 Chemical Graphs, (3) 2689-02-Task 2 (Figures 4 through 31), (4) 06081084 Groundwater Multi-Inlet Piezometer (MIP) Data, (5) A-Zone Class Discussion from APAR, (6) Monitor Well Construction Diagrams, (7) Slug Tests, and (8) Water Sampling Logs.
28	General	Sarah Schreier TCEQ Technical Support Section Remediation Division	TCEQ continues to have concerns that the screening criteria contained in the approved Tier 1 RI Work Plan may not retain all COCs that would be retained under State of Texas rules. TCEQ will continue to insist that COCs which do not screen out under the criteria listed in 30 TAC §350.71 (k) be retained for further evaluation. The respondents have previously agreed to provide adequate information to allow TCEQ to conduct a parallel path risk assessment under 30 TAC §350.71 (k).	The project team understands that TCEQ has concerns regarding the screening criteria contained in the approved Tier 1 RI work plan. Specifically, the project team understands that TCEQ is concerned that some COCs may be screened using the approved screening criteria. The project team will continue to move forward with the work plan as approved by the EPA authorized remedial project manager.
29	General	Sarah Schreier TCEQ Technical Support Section Remediation Division	TCEQ reiterates the initial comment. The groundwater pathway for human health exposure needs to be evaluated as "complete or reasonably anticipated to be complete." Also, this report indicates that groundwater and surface water are in communication. Therefore, the groundwater migration to surface water exposure pathway should be evaluated as complete or potentially complete. Please revise the report accordingly, and remove the statement that "No potential pathway exists for human exposure to impacted groundwater at the site."	See the response to Comment No. 26.

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30	General	Sarah Schreier TCEQ Technical Support Section Remediation Division	Please incorporate any referenced information from the Huntsman facility APAR into this report so that it is a stand alone document. Remember that your intended audience is the citizenry as well as the regulators. Comment 54 is reiterated: Describe the collection methodology for "borehole water samples." Clarify whether these were literally taken from an open borehole or a temporary piezometer and whether it was collected via bailer or specify type of pump and flow rate (low flow or high flow?). Comments 55 and 56 are consolidated into two more general questions: What conclusions may be drawn from the data referenced? What level of reliance may be placed on the data referenced in evaluating questions relevant to the Star Lake Canal Site?	All referenced information from the Huntsman Site-Wide APAR will be incorporated into the Draft Tier 1 RI Report. The Huntsman Site Wide Groundwater APAR borehole water samples were collected from temporary piezometers constructed of 1 -inch diameter PVC riser, with 10-foot slotted PVC screens at the MIP-GP sample locations. The borehole water samples were collected by a low-flow sampling technique with the use of a peristaltic pump at a flow rate of 100 milliliters per minute. This borehole water sampling technique is a widely accepted method for collection of representative data and was used to establish the locations of monitoring wells for the groundwater monitoring network. (See response to Comment No. 27)
31		Sarah Schreier TCEQ Technical Support Section Remediation Division	TCEQs initial comment is reiterated and clarified: Include a more detailed analysis of what data needs to be collected in the next phase of field work and what questions remain to be answered. The conclusions section needs to include a detailed analysis of what study questions have been adequately answered, and which have not. For those study questions that have not been fully answered, an evaluation of the remaining data gaps is necessary to provide a foundation upon which the Work Plan for the Tier 2 Remedial Investigation can be built.	See attached response to Comments No. 2 and 4.
32	Original Item No. 34	Sarah Schreier TCEQ Technical Support Section Remediation Division	Determination of LHHCs with regards to Soil, and groundwater – TRRP Assessment Levels, which are by default residential, should be used in place of Tier 1 industrial PCLs. Also, the Soil PCL for the protection of class 1 groundwater should be considered unless the groundwater is demonstrated to either not be a groundwater bearing unit, or to meet the definition of a Class 3 groundwater bearing unit.	Since current land use of the site would result in exposure to constituents consistent with an industrial exposure scenario, TRRP Tier 1 Industrial PCLs provide adequate screening-level standards for the site. In addition during the Remedial Action land-use institutional controls will be addressed. The draft Tier 1 RI report will be revised to indicate the use of soil PCLs protective of Class 2 Groundwater, as classified in the Huntsman Site-Wide APAR. (See response to Comment No. 27)